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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,759	11/07/2001	Richard A. Jefferson	076518-0150	8995
7590	06/02/2004		EXAMINER	
Richard C Peet Foley & Lardner Suite 500 3000 K Street NW Washington, DC 20007-5109			VOGEL, NANCY S	
			ART UNIT	PAPER NUMBER
			1636	13
DATE MAILED: 06/02/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/936,759	JEFFERSON ET AL.
Examiner	Art Unit	
Nancy T. Vogel	1636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-59 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
 5) Claim(s) ____ is/are allowed.
 6) Claim(s) ____ is/are rejected.
 7) Claim(s) ____ is/are objected to.
 8) Claim(s) 1-59 are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ . | 6) <input type="checkbox"/> Other: ____ . |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1-7, claim(s) 1-18, 20-31, and 38-42 and 45, drawn to a nucleic acid consisting essentially of a nucleotide sequence that encodes a microbial beta-glucuronidase, which is not E. coli beta-glucuronidase, vectors comprising said nucleic acid sequence, cells comprising said vector, and a method of using said nucleic acid comprising detecting the presence of the microbial beta-glucuronidase, wherein each group is directed to a nucleic acid which encodes one of the beta-glucuronidases shown in Fig. 4 or 5, i.e. Staphylococcus (Group 1), Enterobacter/Salmonella (Group 2), Pseudomonas (Group 3), Salmonella (Group 4), Staphylococcus warneri (Group 5), Staphylococcus homini (Group 6), or Thermatoga maritime (Group 7), beta-glucuronidase encoding nucleic acids.

Group 8-14, claim(s) 19, drawn to a vector comprising a nucleic acid encoding a protein that specifically binds a cell, wherein the nucleic acid is fused to a nucleic acid encoding

a beta-glucuronidase, wherein each group is directed to one of the nucleic acids which encodes one of the beta-glucuronidases shown in Fig. 4 or 5, i.e. *Staphylococcus* (Group 8), *Enterobacter/Salmonella* (Group 9), *Pseudomonas*(Group 10), *Salmonella* (Group 11), *Staphylococcus warneri* (Group 12), *Staphylococcus homini* (Group 13), or *Thermatoga maritime* (Group 14), beta-glucuronidase encoding nucleic acids.

Group 15-21, claim(s) 32-37, drawn to a recombinant beta-glucuronidase, wherein each group is directed to one of the beta-glucuronidases shown in Fig. 4 or 5, i.e. one of *Staphylococcus* (Group 15), *Enterobacter/Salmonella* (Group 16), *Pseudomonas*(Group 17), *Salmonella* (Group 18), *Staphylococcus warneri* (Group 19), *Staphylococcus homini* (Group 20), or *Thermatoga maritime* (Group 21) beta-glucuronidases.

Group 22-28, claim(s) 43 and 44 drawn to a method of producing a transgenic plant, wherein each group is directed to a method comprising introducing a vector comprising a nucleic acid sequence encoding one of *Staphylococcus* (Group 22), *Enterobacter/Salmonella* (Group 23), *Pseudomonas*(Group 24), *Salmonella* (Group 25), *Staphylococcus warneri* (Group 26), *Staphylococcus homini* (Group 27), or *Thermatoga maritime* (Group 28), beta-glucuronidases.

Group 29-35, claim(s) 46-48, drawn to a transgenic plant, wherein each group is directed to a transgenic plant comprising a vector comprising a nucleic acid encoding one of *Staphylococcus* (Group 29), *Enterobacter/Salmonella* (Group 30),

Pseudomonas(Group 31), Salmonella (Group 32), Staphylococcus warneri (Group 33), Staphylococcus homini (Group 34), or Thermatoga maritime (Group 35), beta-glucuronidases.

Group 36-42, claim(s) 49 and 50, drawn to a transgenic aquatic animal, wherein each group is directed to a transgenic aquatic animal comprising a vector comprising a nucleic acid encoding one of Staphylococcus (Group 36), Enterobacter/Salmonella (Group 37), Pseudomonas(Group 38), Salmonella (Group 39), Staphylococcus warneri (Group 40), Staphylococcus homini (Group 41), or Thermatoga maritime (Group 42), beta-glucuronidases.

Group 43, claim(s) 51-53, drawn to a method for identifying a microorganism that secretes beta-glucuronidase.

Group 44-50, claim(s) 54-59, drawn to a method for providing an effector compound to a cell in a transgenic plant, wherein each group is directed to said method wherein said transgenic plant comprises a vector comprising a nucleic acid encoding one of Staphylococcus (Group 44), Enterobacter/Salmonella (Group 45), Pseudomonas(Group 46), Salmonella (Group 47), Staphylococcus warneri (Group 48), Staphylococcus homini (Group 49), or Thermatoga maritime (Group 50), beta-glucuronidases.

The inventions listed as Groups I-XXII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

PCT Rule 13.2 requires that unity of invention exists only when there is a shared same or corresponding technical feature among the claimed inventions. Each member with each set of groups (1-21) of inventions is drawn to a nucleic acid , fusion nucleic acid, or polypeptide unrelated to the other members and thus does not share a same or corresponding technical feature with the other members. Each set of groups of inventions has a different technical feature not shared by the other groups: Groups 1-7, 8-14, 15-21, 29-35, and 36-42 are directed to nucleic acids, vectors containing nucleic acids encoding fusion polypeptides, polypeptides, plants and animals which are different from each other structurally and functionally and thus do not share a technical feature. Groups 1-7 also contains the first method of use. Groups 22-28 are drawn to a method which has the technical feature of a method of producing a transgenic plant, which is not shared by the other groups. Group 43 is drawn to a method which has the technical feature of a method of identifying a microorganism which makes beta-glucuronidase, which is not shared by the other groups. Groups 44-50 are drawn to a method which has the technical feature of a method of providing an effector molecule to a cell of a transgenic plant.

Groups 1-42 and 44-50 are comprised of multiple inventions which are the products or methods drawn to different, distinct, and independent sequences, drawn to different proteins and genes, which do not render obvious each other and thus are independent and distinct. Applicants must also elect a single invention which is the product or method drawn to one specific sequence to which the claims will be restricted. This is not an election of species because the sequences are independent and distinct inventions and thus the products or methods drawn to different independent and distinct sequences are independent and distinct inventions from each other. Note, this restriction to examination of a single sequence is due to the now very high and undue burden for examining more than one sequence which is caused by the continued exponential increase of size of the sequence databases to be searched for each sequence, resulting in a corresponding increase in computer search time and examiner time for reviewing the computer search results. Therefore, the limited resources of the Office no longer permit examination of more than one sequence in an application. Note: the non-standard format of this restriction, separating the inventions into multi-invention groups drawn to independent or distinct types of products and methods, followed by an election of a single invention drawn to one sequence within the elected multi-invention group, was done for the sake of compactness of the communication and clarity, instead of using the more standard format setting forth each separate invention drawn to each separate sequence which would require a much longer communication.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy T. Vogel whose telephone number is (571) 272-0780. The examiner can normally be reached on 7:30 - 4:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel, Ph.D. can be reached on (571) 272-0781. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TERRY MCKELVEY
PRIMARY EXAMINER

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